



FleetConnect™ Office Fleet Fueling System

Setup and Operation



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WARNING

- Before using this product, read and understand the instructions.
- Save these instructions for future reference.
- All work must be performed by qualified personnel trained in the proper application, installation, and maintenance of equipment and/or systems in accordance with all applicable codes and ordinances.
- Failure to follow the instructions set forth in this publication could result in property damage, personal injury, or death from fire and/or explosion, or other hazards that may be associated with this type of equipment.

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INTRODUCTION

Purpose

The purpose of this document is to instruct Liquid Controls customer in the installation, setup, and operation of FleetConnect office software.

FleetConnect Office Software Overview

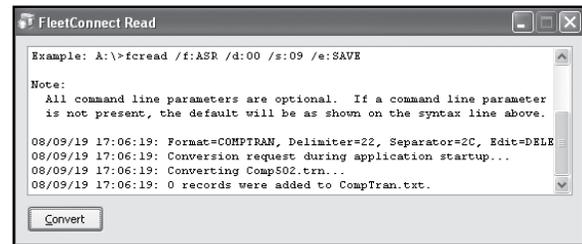
The FleetConnect Office CD-ROM contains four executable programs, FCRead.exe, FCEdit.exe, FCLoad.exe and Officeuser.exe, plus a folder titled "iButton". If you are using FleetConnect Office on multiple computers, one copy of FleetConnect Office is required for each computer.



FleetConnect Office

FLEETCONNECT READ - FCREAD.EXE

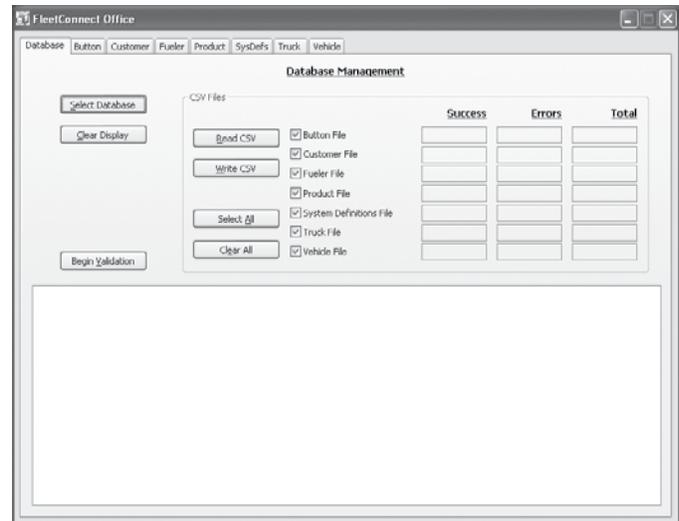
FleetConnect Read is an executable program that converts .trn files (transaction files created by the DMS i1000s from deliveries in the field) into ASCII text files. An FCRead shortcut icon can be automatically installed on your desktop during installation. Double-click the shortcut icon to launch the executable.



FCRead.exe

FLEETCONNECT EDIT - FCEDIT.EXE

FleetConnect Edit is the graphical user interface of FleetConnect Office. With FCEdit.exe, users can map buttons, enter or edit operational data, configure print tickets, validate any changes made in the field, change settings, and convert .502 into .csv files (and vice versa). An FCEdit shortcut icon can be automatically installed on your desktop during installation. Double-click the shortcut icon to launch the executable.



FCEdit.exe

FLEETCONNECT LOAD - FCLOAD.EXE

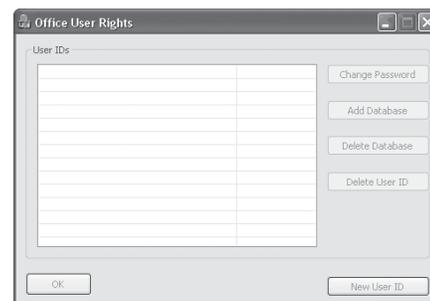
A command line based application that can be used to convert ASCII text files to .502 and .slf files used by the DMS i1000 FleetConnect application.

OFFICE USER RIGHTS - OFFICEUSER.EXE

The Office User Rights tool is an optional application used to setup user level security access to the FCEdit application.

iBUTTON (FOLDER)

The iButton folder contains the drivers and software necessary for the USB Button Reader. They are activated and installed automatically with the FleetConnect Office software.



OfficeUser.exe

FleetConnect Refueling System Overview

FleetConnect is a Liquid Control's in-cab fuel delivery and data collection application for the DMS i1000 that spans from the point of delivery to the office PC. FleetConnect is specially designed for businesses who have or fuel customers with large fleets of vehicles and equipment or fuel their own fleet. Like other Liquid Control's data management applications, FleetConnect runs in conjunction with flowmeters equipped with the LectroCount electronic registers.

The main functions of a FleetConnect System include:

- Account management
- Operational data management
- Delivery data tracking
- Data entry interface
- File conversions
- Security settings for fueling access and system configuration
- Print ticket configuration
- Customer equipment identification
- Delivery start and stop

COMPONENTS

There are five main components unique to a FleetConnect System: DMS i1000 FleetConnect (DMS i1000 software), FleetConnect Office (office PC software), the EZConnect button reader, the USB RFID button reader and the RFID buttons (stainless steel buttons with a unique identification number that can be read by a button reader).

SETUP

During setup, each vehicle (or piece of equipment) to be fueled is assigned a RFID button number. The vehicle information (name, fuel type, etc.) and the RFID button number are saved together in the FleetConnect database (in this manual this is referred to as mapping). The RFID buttons are then taken into the field and fastened to their respective vehicles. DMS i1000 FleetConnect uses the RFID button numbers to identify vehicles before making a delivery.

DELIVERIES

To make deliveries, fuelers simply push the EZConnect button reader over the RFID button of the vehicle. The EZConnect button reader transmits the RFID button number to the DMS i1000. DMS i1000 FleetConnect receives the transmission from the EZConnect button reader and pulls the vehicle data programmed to the RFID button number. After FleetConnect confirms the identity of the vehicle, it opens the control valve on the appropriate meter system allowing the fueler to make the delivery. FleetConnect records the metrological data of the delivery and saves it in a record with the vehicle data. DMS i1000 FleetConnect transmits all of the transaction data compiled throughout the shift to the office PC via cell modem, RF transmission, or USB memory device.

OFFICE

In the office, FleetConnect Office converts the data received from each DMS i1000 into ASCII text files. ASCII text files can be easily transferred to third-party software. The FleetConnect database consists of operational data, like vehicle, customer, product and fueler data. FleetConnect office has a graphical user interface, FCEdit, for office computers where users can manage operational data, configure print tickets, and change system settings. FCEdit also allows users to verify or reject any changes made to the database by DMS i1000s in the field—such as new customers or vehicles—and send the changes, if verified, out to all other DMS i1000 units.

INTRODUCTION

FleetConnect System Components

METERING SYSTEM

Typically mounted to the back or side of a delivery vehicle, the metering system accurately measures, controls the flow, and preserves the purity of the product. A Liquid Controls metering system can include the meter, LCR electronic register, strainer, ETVC probe (temperature compensation), air eliminator, and control valve. In FleetConnect systems, the control valve is opened only when vehicles are identified by the EZConnect button reader as a safeguard against misfuelings.



M-10 Meter with LectroCount LCR-II Electronic Register, Optical Air Eliminator, Hi Capacity Strainer, and E-7 Valve.

LECTROCOUNT REGISTERS

LectroCount registers are Weights & Measures approved electronic registers typically mounted on the meter. LectroCount registers provide metrological data during custody transfers and relay the data to the DMS i1000.



LectroCount Registers

USB RFID BUTTON READER

The USB RFID Button Reader is a convenient tool for identifying and mapping RFID buttons during FleetConnect setup. It plugs in to a USB port on your office PC and reads RFID button numbers.



USB RFID Button Reader

FleetConnect System Components



DMS i1000
and Lap Pad

DMS i1000

The DMS i1000 is an in-cab computer with a heavy-duty lap pad interface. The DMS i1000 runs multiple DMS i1000 software application programs designed for specific types of fuel delivery companies. The applications record operational and fueling data during custody transfers. The recorded data is transferred to an office PC via a USB device, RF communication, or cellular transmission. Every DMS i1000 comes equipped with two support software programs, LCP File Server and LCR Host. LCP File Server is a file manager program for maintaining and managing files. LCR Host is used to set up LectroCount register networks and calibrate the metering system.



EZConnect Button Reader
with RFID Button

EZCONNECT BUTTON READER AND RFID BUTTONS

The EZConnect button reader is a handheld device that reads the ID number of uniquely-numbered stainless steel buttons called RFID buttons. During setup, a vehicle file is created for every fuelable vehicle or piece of equipment that you fuel. Then, each vehicle file is then programmed with a RFID button number. Finally, the RFID buttons are physically attached to the vehicle they represent in the FleetConnect database. Before fuel deliveries, fuelers attach the EZConnect to a vehicle's RFID button. A RF transceiver inside the EZConnect transmits the ID number to the DMS i1000. DMS i1000 FleetConnect pulls the vehicle file with the RFID button number and records the delivery information together according to vehicle data.



Epson Roll Printer

PRINTER

The printer prints out a record of the delivery. The Epson Roll Printer is ideal for the long tickets FleetConnect prints at the end of driver shifts.

INTRODUCTION

FleetConnect System Components

DB MANAGER

DB Manager is used to setup and manage wireless communication between DMS i1000s in the trucks and personal computers in your office. DB Manager contains two programs LCPSetup.exe and DBManager.exe. The first program, LCPSetup.exe, aligns communication parameters and conducts testing to confirm wireless communication between the office PC and the DMS i1000. The second, DBManager.exe, specifies the DMS i1000s in the field, sets the file paths to the office PC, sets a schedule to check for modified FleetConnect database files and sends those files to the DMS i1000s in the field.



DB Manager

CELL MODEM

Cell modems enable long distance wireless data transmissions between DMS i1000s in the field and office PCs. Cell modems and service contracts are purchased separately from a cellular service provider.



Cell Modem

RF TRANSCEIVERS

The RF transceivers are designed for short, line-of-sight wireless transmissions between DMS i1000s in the field and the office PC.



RF Transceivers

USB FLASH MEMORY DEVICE

The USB Flash Memory Device is a data repository used to transfer data between the DMS i1000 Module and the office PC. A USB Flash Memory Device is included with the purchase of a DMS i1000.



USB Flash Memory Device

FleetConnect System Components

Third-Party Software

FleetConnect Office

Office Computer



FleetConnect Office



USB Button Reader



Data Transmissions



USB Memory Device



RF Transceivers



DB Manager



Cell Modem

FleetConnect DMS i1000 Application



DMS i1000

EZConnect Button Reader



Support Software

LCP File Server

LCR Host

Metering & Registration



LectroCount Registers



POD Pulser



EVTC Temperature Compensation



LC PD Meter

INTRODUCTION

FleetConnect Data Flow

Third-Party Software

Third-party software can import the ASCII text files from FleetConnect Office for processing and report generation.

OPERATIONS DATABASE

FLEETCONNECT OFFICE

FCREAD • FCLOAD • FCEDIT

Update/Edit Delivery Files
(.txt-.csv-.xml)
(text file)

Convert
Transaction Files
to Delivery Files
(.txt-.csv-.xml)

Convert Updated
Delivery Files to
DMS i1000 Files
(.502 • .sif)

WIRELESS DATA TRANSMISSION

DB MANAGER

DB Manager • LCP Network Setup

DATA TRANSMISSION

Retrieve
Transaction Files
from DMS i1000s
(comp502.trn)

USB Memory
Device



Cell Modem
Transmission
or
RF Transmission

DATA TRANSMISSION

Send Updated
DMS i1000 Files
(.502 • .sif)

USB Memory
Device



FUELING DATA

DMS i1000 FLEETCONNECT

Send Transaction
files to Office
(comp502.trn)



Retrieve Updated
DMS i1000 Files
(.502 • .sif)

FleetConnect Data Flow

DMS i1000 APPLICATIONS TO FLEETCONNECT OFFICE
(Begins at the bottom of the chart on page 10—DMS i1000 FleetConnect—and ends at the middle top of the diagram—FleetConnect Office.)

DMS i1000

After each delivery, the DMS i1000 compiles the metrological, transaction, customer, driver, and product data into transaction files (.trn). The transaction files are then sent to the office PC either wirelessly (RF or cellular), or they are downloaded to a USB memory device.

DATA TRANSMISSION (WIRELESS)

If the transaction files are sent wirelessly (RF or cellular) using the **Send Transactions to Office** command, DB Manager receives the transaction files (.trn) and notifies FleetConnect Office that the files have been received. Transmissions can be setup to be sent automatically to the office

DATA TRANSMISSION (USB MEMORY DEVICE)

If the transaction files are sent via USB memory device, when a shift is finished, the fuelers download the transaction files created during their shift using the **Send Transactions to Office** command and return the USB device to the office after their shift.

FLEETCONNECT OFFICE SOFTWARE

FCRead converts the transaction files (.trn) into ASCII text or XML files. The files can then be absorbed into third party software.

If the files are transferred via a USB memory device, they must be copied from the USB device and pasted into the C:/DMS folder. From there, FCRead can convert them into text or XML files.

THIRD PARTY SOFTWARE

Third-party software imports the ASCII text files from FleetConnect Office for processing and report generation. If any dispatch data is generated by the third-party software, it can be converted into ASCII text files and imported into the FleetConnect database.

FLEETCONNECT OFFICE TO DMS i1000 APPLICATIONS
(Begins at the middle top of the chart on page 10—FleetConnect Office—and ends at the bottom of the diagram—DMS i1000 FleetConnect.)

FLEETCONNECT OFFICE

FCedit converts the text files (and any configuration changes made in third-party software) into .502 and .slf database files.

DATA TRANSMISSION (WIRELESS)

DB Manager sends modified transaction files to the DMS i1000s wirelessly. By sending only modified “live” files, cellular service costs and transmission times are reduced. DBManager checks newly converted .502 and .slf database files against a set of “live” files. “Live” files are the most recent set of database files created by FleetConnect Office. If a new database file is created that differs from the “live” file, it means the file has been modified since the last data transmission from the DMS i1000s.

DATA TRANSMISSION (USB MEMORY DEVICE)

Transferring data via USB memory devices requires the fuelers to bring the USB devices to the delivery truck at the beginning of their shift, plug the USB device into the DMS i1000, and load any new files onto the DMS i1000 by using the **Retrieve Database Updates** command. If the new .502 files have been copied to the USB memory devices in the office, they will simply rewrite the .502 files on the DMS i1000s when your fuelers upload them.

DMS i1000

Modified .502 and .slf database files are loaded into the LCP File Server of a DMS i1000. If a USB memory device is being used, the **Retrieve Database Updates** command must be used to load the database files. RF and cellular transmissions can be setup to automatically load database files every time the DMS i1000 sends data (this applies to logging on, logging off, completing a delivery, and editing the database). Any changes made on the office PC and received by the DMS i1000 are applied to all subsequent deliveries.

SETUP

FleetConnect Refueling System Setup Overview

There are three setup phases that must be completed before your fuelers can begin delivering fuel with FleetConnect. The first phase, software installation, includes installing the software on the CD-ROM, creating folders and file paths for data transfers, and configuring FleetConnect Office's settings. In the second phase, you will create the FleetConnect database and save it into the FleetConnect database and map RFID buttons to your customers' vehicle data. The third and final phase is the field setup. In this phase, a RFID button is attached to every vehicle or piece of equipment that you fuel and the FleetConnect database is loaded onto the DMS i1000s.

Complete the following installations and setup prior to installing FleetConnect Office Software:

- Install meter system
- LectroCount Register(s) Installation (EM100-10 or EM150-10)
- LectroCount Register(s) Setup (EM100-10 or EM150-11)
- DMS i1000 Installation (EM200-10)
- DMS i1000 Setup (EM200-11)
- DB Manager (EM200-21) wireless only



FleetConnect CD

PHASE 1 - SOFTWARE INSTALLATION

1. Install Software

Install FleetConnect Office and USB RFID button reader software on a designated office computer.

2. Establish Settings and Directories

Adjust FleetConnect Office settings and set file paths for moving FleetConnect files on and off of your office computer. If needed, set up multiple databases.

PHASE 2 - FLEETCONNECT OFFICE SETUP

3. Populate Database

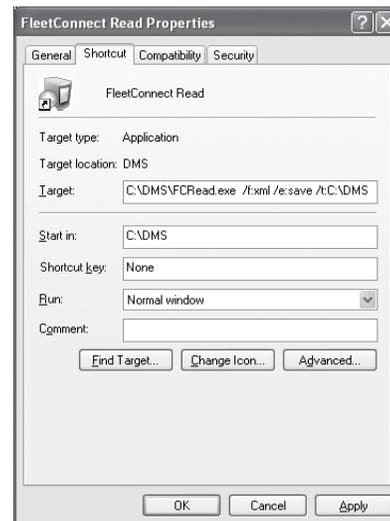
Pull operational data—such as customer and vehicle data—from existing company software and load data into FleetConnect Office.

4. Print Stickers of Vehicle Directory

Create stickers to help distribute buttons throughout the fleets. This is an optional step. It is very helpful for setting up fleets with a large number of vehicles.

5. Map Buttons

Read buttons with USB RFID button reader and assign them to vehicles.



FCRead.exe Properties

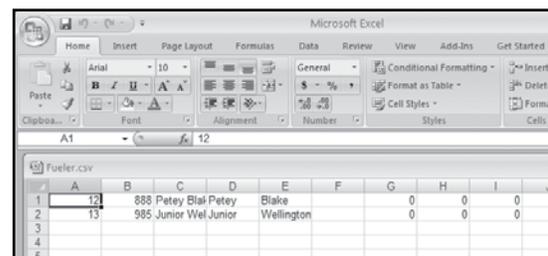
PHASE 3 - FIELD SETUP

6. Fasten RFID Buttons to Vehicles

Take the mapped RFID buttons into the field and attach them to the proper vehicle.

7. Transfer Data to DMS i1000s

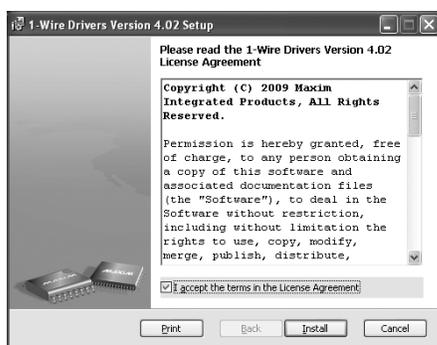
Save FleetConnect database to USB memory device and load onto the DMS i1000s.



ASCII Text File in Excel



FleetConnect Office Select Components



1-Wire Drivers Version 4.02 Setup License Agreement

The following FleetConnect Office folders and files will be loaded into the destination folder:

- Documents (folder: FleetConnect documents)
- iButton (folder: USB RFID button reader files/drivers)
- FCRead.exe
- FCLoad.exe
- FCEdit.exe
- vcrditst x86.exe (Microsoft Visual C++ Redistributable Package)
- HSSLF32.dll
- IBFS32.dll
- IBUSB32.dll
- IS CustomDll.dll
- LCLCP32.dll
- LCLCPF32.dll
- LCLib32.dll
- SG502CD.isu (FleetConnect Uninstall Script)
- install 1 wire drivers x86 v402.msi (USB RFID button reader install)

Phase #1 - Software Installation

1. INSTALL FLEETCONNECT OFFICE SOFTWARE

To install FleetConnect Office software and the drivers for the USB RFID button reader, insert the CD-ROM into your computer. Installation should begin automatically. Follow the FleetConnect Office installation wizard directions until installation is complete. Then follow the directions in the 1-Wire Drivers Version 4.02 Setup windows to install the drivers for the USB RFID button reader.

To install FleetConnect Office software.

1. Insert the FleetConnect Office CD-ROM
2. From the **Welcome** window, click **Next**.
2. From the **Software License Agreement** window, click **Yes**.
3. From the **Choose Destination Location** window, perform one of the following options:
 - 3a. Click **Browse** to select a custom destination location.
 - 3b. Click **Next** to select the default destination location C:\DMS.
4. From the **Select Components** window, check the box(es) according to your preferences for **Install Application Icons on the Desktop** (suggested) and **Autorun FleetConnect Office on startup?**
5. Click **Next**.
6. From the **Start Copying Files** window, click **Next** to begin copying the FleetConnect Office files onto your computer.
7. From the **Setup Complete** window, click **Finish**.

To install the drivers for the USB RFID button reader.

1. After installing FleetConnect Office, a License Agreement window for **1-Wire Drivers Version 4.02 Setup** will appear. Check the **I accept the terms in the License Agreement**. Click **Install**.
2. When installation is complete, click **Finish**.

If automatic launch fails, perform the following:

1. From the Taskbar, click **Windows® Start** menu. Then click **Run**.
2. From the **Run** window click **Browse**.
3. From the **Browse** window select the CD-ROM drive, select the **SETUP.EXE** file then click **Open**.
4. From the **Run** window click **OK**.

SETUP

2. ESTABLISH SETTINGS AND DIRECTORIES

After installing the software, you can adjust certain FCRRead settings and directories to best suit your operations.

- **File Conversion Format**

Determines which file format FleetConnect Read will convert the transaction files into.

- **Edit Record Validation Setting**

Sets FleetConnect's Record Validation feature. Record Validation allows FleetConnect Office users to review changes made by DMS i1000s in the field and delete, edit, or accept them into the FleetConnect database. The **save** setting enables Record Validation. The **delete** setting disables Record Validation.

- **Converted Files Target Location**

This setting determines where, on the computer, the converted files created by FCRRead are placed.



Right Click FCRRead Icon and Select Properties

To edit the FCRRead settings and directories:

1. Right-click **FleetConnect Read** short-cut icon on your desktop, then click **Properties**.
2. From the **FleetConnect Properties** window in the **Target** text box type any of the additional functions to specify; the title bar extension, the format of file conversions, the edit transaction processing feature, and location of the FCRRead executable. If no functions are added to the target, the defaults will be activated.

- 2a. Determine the format of FCRRead file conversions. The **xml** setting will create an Excel file. The **asr** setting will create a file that is backward compatible to LC3 systems (contact factory for more information). The **CompTran** setting will create a text file. The default is **CompTran**.

/f: (XML, ASR, or CompTran)

- 2b. Activate or deactivate the edit record validation feature (**save** or **del**). **save** saves database changes made by DMS i1000s and collects them for review in the edit record validation feature. **del** deletes all database changes made by DMSi1000s. The default is **delete**.

/e: save

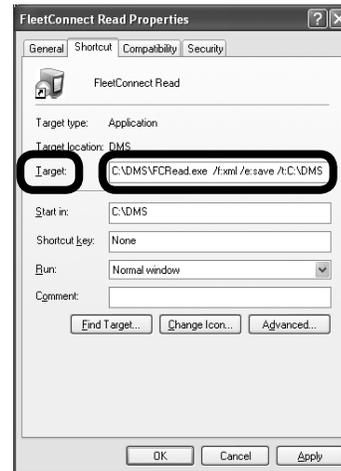
- 2c. Determine the target location of converted files from FCRRead. The default is the destination target selected during software installation.

/t:C:\DMS

Example:

```
C:\DMS\FCRRead.exe /f:xml /e:save  
/t:C:\DMS
```

3. Click **Apply**, then **OK**.



FCRRead Properties

Type in Settings and Directories Carefully

When typing in your settings and directories preferences make sure to (a) put a space before the field, (b) use a forward slash first, (c) use a lower case, (d) use a colon, and (e) enter the setting or directory exactly as noted in this manual.

In the example given, FCRRead will convert files in the C:\DMS received from the DMS i1000 unit. The files will be converted to xml files and placed back into the C:\DMS folder. Any database files (not transaction files) modified by the DMS i1000 will be saved and available for FleetConnect Office users to review in the edit record validation feature.

#2 - FleetConnect Office Software Setup

3. POPULATE DATABASE

After you have installed the FleetConnect Office CD-ROM, all of your company's operational data can be entered into the FleetConnect database. There are three methods for populating the FleetConnect database:

- Key in data using FleetConnect Office user interface - FCEdit
- Key in data using the DMS i1000 lap pad
- Generate an ASCII text file from a third-party software

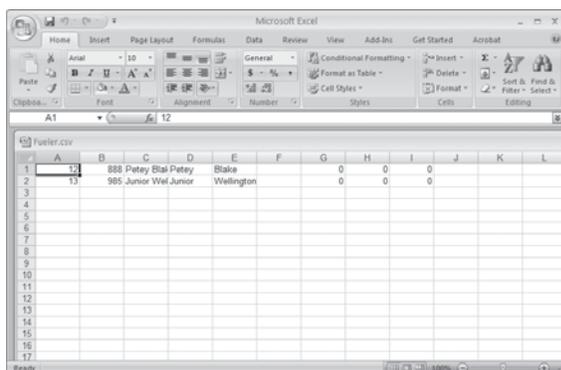
While generating an ASCII text file from a third-party software is the most convenient and the least labor-intensive, but keying in data using the DMS i1000 or the office PC is very useful for day to day operations. Instructions for entering data using the FleetConnect Office FCEdit user interface begin on page 25. Instructions for entering data using the DMS i1000 lap pad are in the FleetConnect Operator's Manual E200-14.

ASCII TEXT FILES

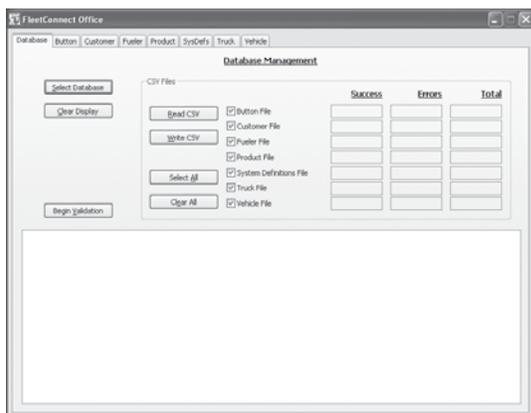
Third-party software and company spreadsheets often contain the vital operational data needed to populate the FleetConnect database. ASCII text files containing the operational data can be generated from most third-party software.



ASCII Text File in Notepad



ASCII Text File in Excel



FCEdit Database Window

Button.csv Not Needed

The button file is created by FCEdit when buttons are mapped. It is not needed to populate the database

An IT technician may be needed to generate the ASCII text files.

Once the ASCII files are generated, FCEdit can incorporate the data into the FleetConnect database. The appendix of this manual contains examples of each file and a table that includes a description of each field in that file.

To load ASCII text files into the FleetConnect Office database:

1. Generate ASCII text files from third-party software. See appendix for file details.
2. From the desktop double-click **FCEdit** icon.
3. From the **FleetConnect Edit** window, click the **Database** tab.
4. Under **CSV Files**, select the check boxes of the individual files to be converted or click **Select All** to convert all files.
5. Click **Read CSV**.
6. From the **Select Folder for Source CSV Files** select the folder that contains the ASCII text files then click **OK**. The text files will convert into .502 files and automatically save them into the FleetConnect database.

See page 25 for screenshot.

4. PRINT STICKERS OF VEHICLE DIRECTORY

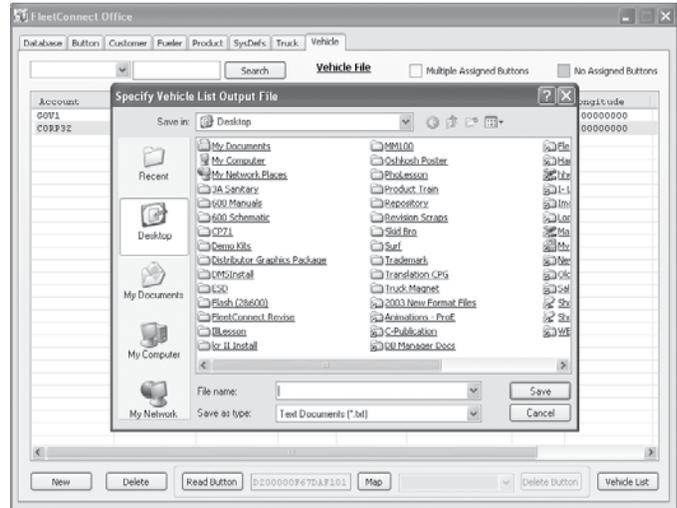
In order to save time and avoid confusing the RFID buttons, Liquid Controls recommends printing out a sticker for each vehicle, putting the sticker on a small bag, and placing the button into the bag. FleetConnect Office provides the **Vehicle List** feature to help you print out these stickers. The following directions require Microsoft Word® and a 8½ x 11 inch sticker sheet.

To create a text file of all the vehicles in your database

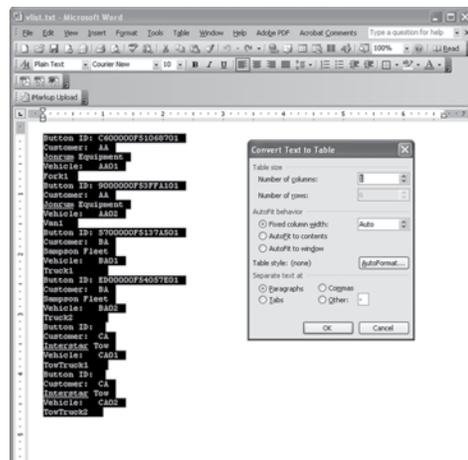
1. From the **FleetConnect Office** window, click the **Vehicle** tab.
2. From the **Vehicle** tab, click **Vehicle List** in the bottom right corner.
3. From the **Specify Vehicle List Output File** window, name and save the text file.
4. Open the saved file with **Microsoft Word®**.

To convert the vehicle list to a Word 2003 table.

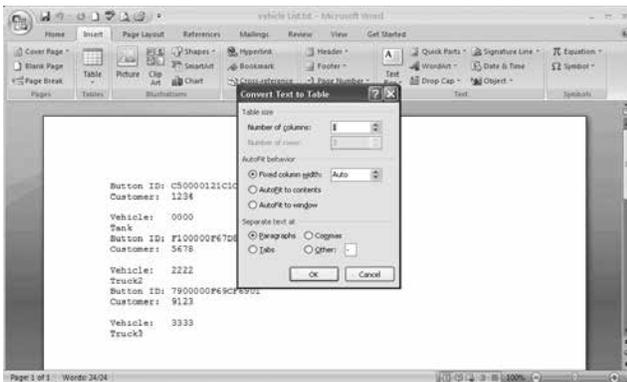
1. With Microsoft Word® open to the file, press **Ctrl-A** to select the entire document.
2. Click **Table > Convert > Text to Table...**
3. Enter the following settings in the **Convert Text to Table** window:
 - a. *Table size:* set *Number of columns* to **1**.
 - b. *AutoFit behavior:* select **AutoFit to contents**.
 - c. *Separate text at:* select **Paragraphs**.
4. Click **OK**.
5. Save the table as a Word® document (before clicking **Save**, set the **Save as type:** to **Word Document (*.doc)**).
6. Close the document, but leave Microsoft Word® open.



Specify Vehicle List Output File



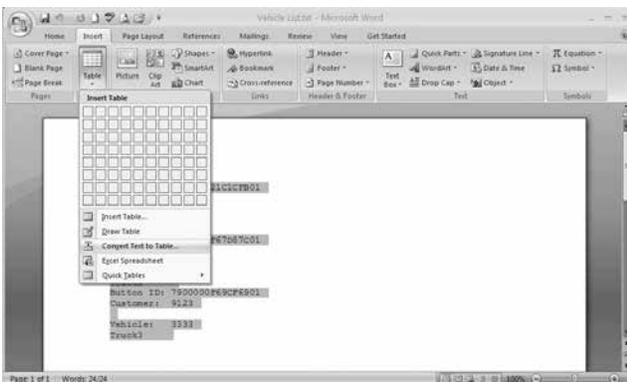
Convert Text to Table



Convert Text to Table Window

To convert the vehicle list to a Word 2007 table.

1. Open the vehicle list with Microsoft Word®, press **Ctrl-A** to select the entire document.
2. Click the **Insert** tab.
3. Click **Table** then click **Convert Text to Table**.
4. From the **Convert Text to Table** window, enter the following:
 - a. Under **Table size** for **Number of columns** set to 1.
 - b. Under **AutoFit behavior**, select the **Fix column width** radio button and set to **Auto**.
 - c. Under **Separate text at**, select the **Paragraphs** radio button.
5. Click **OK**.
6. Click the **Office Button** in the upper left corner, then highlight **Save As**, then click **Word Document**.
7. From the **Save As** window, click **Save**.
8. Close the document, but leave Microsoft Word® open.



Insert Table Window



Save Window

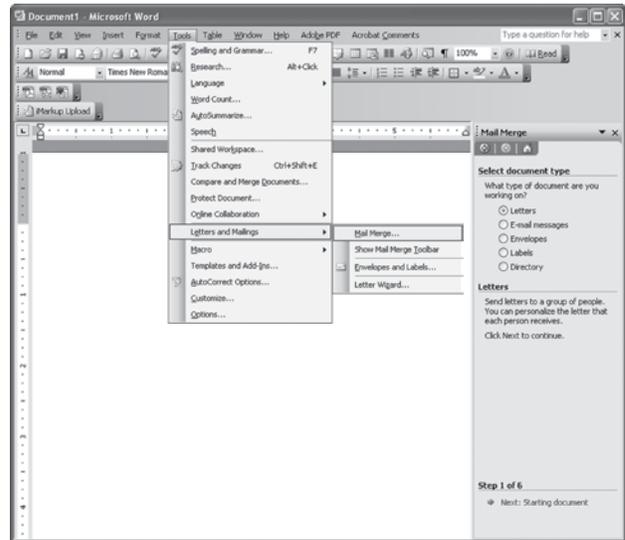
SETUP

4. PRINT STICKERS OF VEHICLE DIRECTORY (CONT.) To create a mail merge using Microsoft Word® 2003:

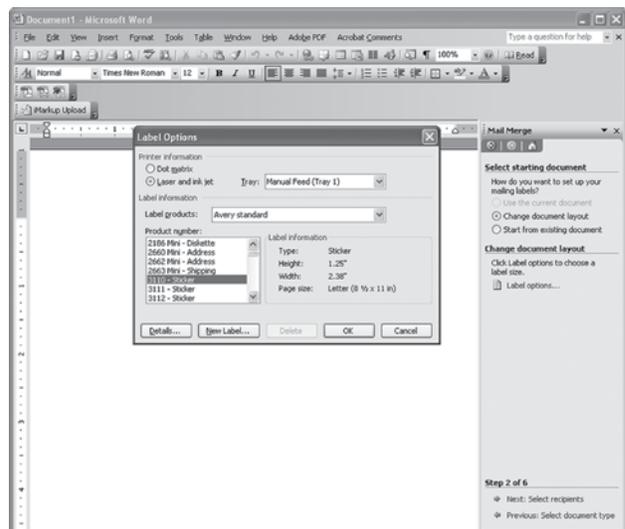
1. Open a new document in Microsoft Word® 2003
2. Click **Tools > Letters and Mailings > Mail Merge...**

Inside the **Windows®** window, a column titled **Mail Merge** will appear to the right of the document. The **Mail Merge** column will lead you through six steps. The final step will print the vehicle list onto the stickers.

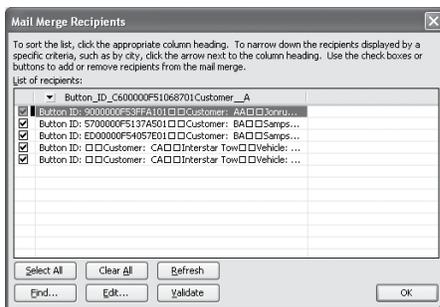
3. **Select document type** - Step 1 of 6
 - a. In the **Mail Merge** column, under **Select document type** select **Labels**.
 - b. At the bottom of the **Mail Merge** column under **Step 1 of 6**, click **Next: Starting document**.
4. **Select starting document** - Step 2 of 6
 - a. In the **Mail Merge** column, under **Select starting document** select **Change document layout**.
 - b. Click **Label options...** When the **Label Options** window opens, choose the **Label Products:** and the **Product Number:** that match your stickers. Click **OK**.
 - c. At the bottom of the **Mail Merge** column under **Step 2 of 6**, click **Next: Select Recipients**
5. **Select recipients** - Step 3 of 6
 - a. In the **Mail Merge** column, under **Select recipients** select **Use an existing list**.
 - b. Click **Browse**. In the **Select Data Source** window, open the .doc file of the vehicle list.
 - c. In the **Mail Merge Recipients** window, Click **OK**.
 - d. At the bottom of the **Mail Merge** column under **Step 3 of 6**, click **Next: Arrange your labels**



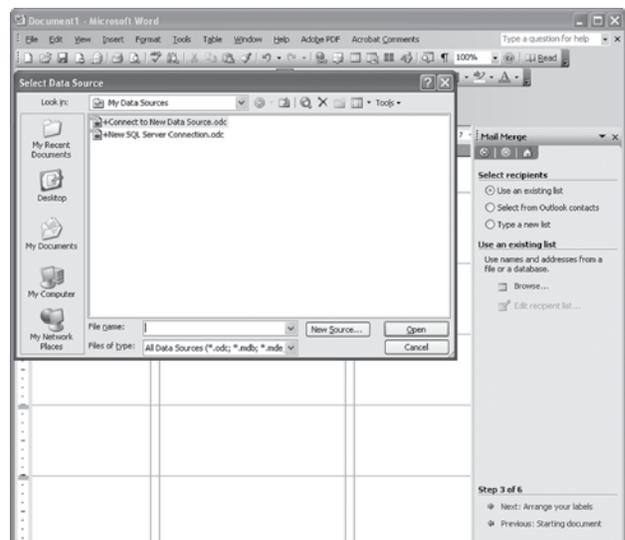
Mail Merge Window



Label Options Window

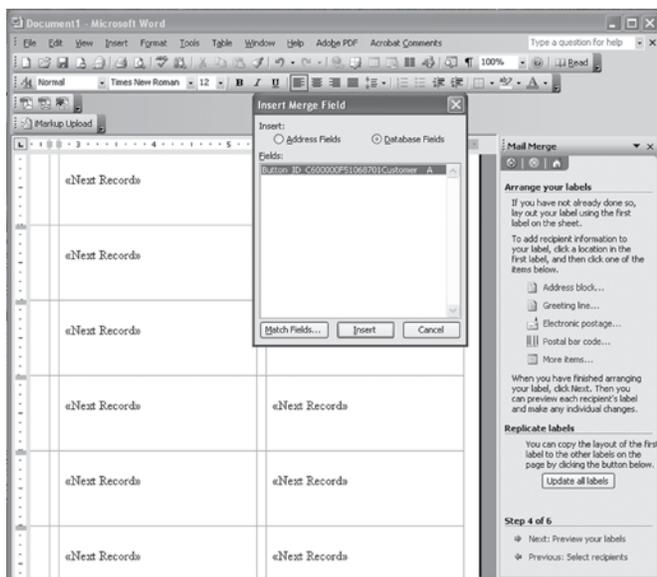


Mail Merge Recipients Window

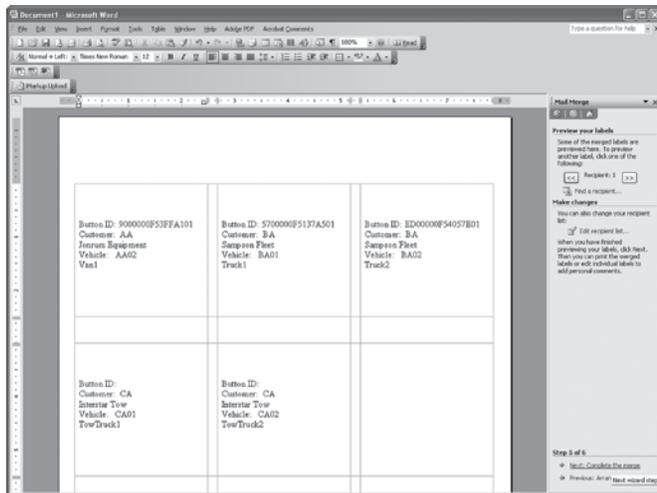


Select Data Source Window

6. *Arrange your labels* - Step 4 of 6:
 - a. In the Mail Merge column, click **More items...**. When the Insert Merge Field window opens, select **Database Fields**, click **Insert**, and then click **Close**.
 - b. Click **Update all labels**.
 - c. At the bottom of the Mail Merge column, under Step 4 of 6, click **Next: Preview your labels**.
7. *Preview your labels* - Step 5 of 6:
 - a. If the labels are in order, at the bottom of the Mail Merge column, under Step 5 of 6, click **Next: Complete the merge**.
8. *Complete the merge* - Step 6 of 6:
 - a. In the Mail Merge column, click **Print**. When the Print records window opens, select **All**, and click **OK**. Make sure the sticker sheets are loaded into the printer before printing.



Insert Merge Field Window



Mail Merge Preview Window

SETUP

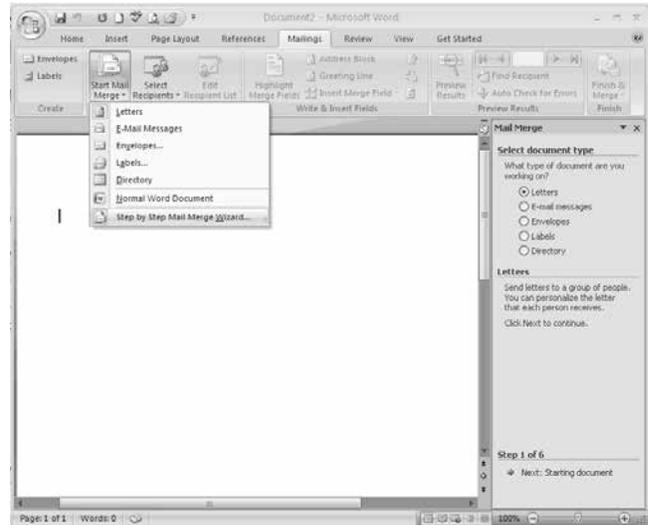
4. PRINT STICKERS OF VEHICLE DIRECTORY (CONT.)

To create a mail merge using Microsoft Word© 2007:

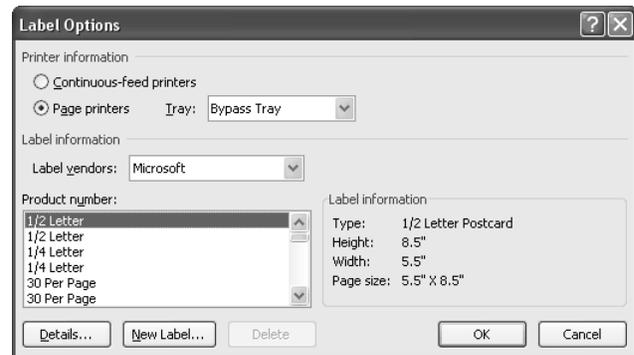
1. Open a new document in Microsoft Word© 2007
2. Click **Mailing** tab>**Start Mail Merge**>**Step by Step Mail Merge Wizard**.....

Inside the **Windows**© window, a column titled **Mail Merge** will appear to the right of the document. The **Mail Merge** column will lead you through six steps. The final step will print the vehicle list onto the stickers.

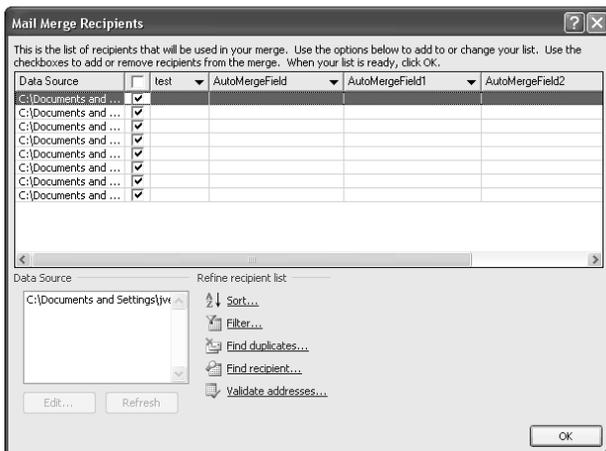
3. *Select document type* - Step 1 of 6
 - a. In the **Mail Merge** column, under **Select document type** select **Labels**.
 - b. At the bottom of the **Mail Merge** column under *Step 1 of 6*, click **Next: Starting document**.
4. *Select starting document* - Step 2 of 6
 - a. In the **Mail Merge** column, under **Select starting document** select **Change document layout**.
 - b. Click **Label options...** When the **Label Options** window opens, choose the **Label Products:** and the **Product Number:** that match the sheet of stickers your purchased to print the vehicle directory onto. Click **OK**.
 - c. At the bottom of the **Mail Merge** column under *Step 2 of 6*, click **Next: Select Recipients**
5. *Select recipients* - Step 3 of 6
 - a. In the **Mail Merge** column, under **Select recipients** select **Use an existing list**.
 - b. Click **Browse**. In the **Select Data Source** window, open the .doc file of the vehicle list.
 - c. In the **Mail Merge Recipients** window, Click **OK**.
 - d. At the bottom of the **Mail Merge** column under *Step 3 of 6*, click **Next: Arrange your labels**.



Mail Merge Wizard Window



Label Options Window



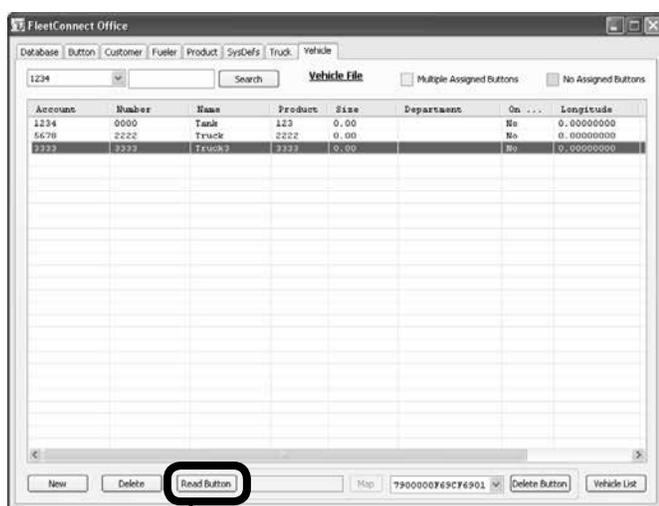
Mail Merge Window



Select Data Source Window

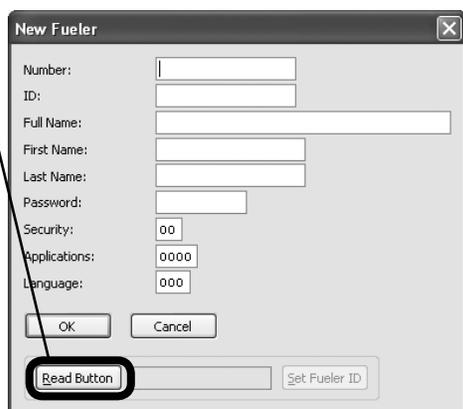


Insert Merge Field Window



Vehicle Window

**READ BUTTON
BUTTON**



New Fueler Window

6. *Arrange your labels* - Step 4 of 6:
 - a. In the Mail Merge column, click **More items....** When the Insert Merge Field window opens, select **Database Fields**, click **Insert**, and then click **Close**.
 - b. Click **Update all labels**.
 - c. At the bottom of the Mail Merge column, under Step 4 of 6, click **Next: Preview your labels**.
7. *Preview your labels* - Step 5 of 6:
 - a. If the labels are in order, at the bottom of the Mail Merge column, under Step 5 of 6, click **Next: Complete the merge**.
8. *Complete the merge* - Step 6 of 6:
 - a. In the Mail Merge column, click **Print**. When the Print records window opens, select **All**, and click **OK**. Make sure the sticker sheets are loaded into the printer before printing.

5. MAP BUTTONS

After transferring the operational data into the FleetConnect database, you can map the RFID buttons to your customer's vehicles. When a RFID button is mapped, the button's unique ID number is assigned to a vehicle and saved in the FleetConnect database. After the buttons are mapped, take them into the field and fasten each button to the vehicle it has been mapped to.

To map the RFID buttons:

A customer and product must be setup before a button can be mapped. The System Definitions tab must be opened before a button can be mapped. If the FleetConnect database was populated in setup step 3, these requirements should be satisfied.

1. From the **FleetConnect Office** window, click the **Vehicle** tab.
2. Plug USB RFID button reader into the office PC.
3. Attach the USB RFID button reader to an RFID button, and click **Read Button**. The RFID number will appear in the box next to the **Read Button** button.
4. Highlight a vehicle from the list. Click **Map** to map the button to the highlighted vehicle in the FleetConnect database.
5. Put the button with the vehicle's sticker (made from the vehicle directory mail merge). A common practice is to place the button in a bag and put the sticker on the bag.

Vehicle Tab Key

Pink highlight: Record not mapped to a button. Yellow highlight: Record is mapped to more than one button.

#3 - Field Setup

6. ATTACH RFID BUTTONS TO VEHICLES

After mapping the RFID buttons and identifying the vehicle each is mapped to, using the vehicle directory stickers, you can attach the RFID buttons to their respective buttons. When attaching the RFID buttons, find a smooth, flat surface above or the the side of the fuel spout where residual fuel will not be splashed on the button. Carefully clean the area of any dirt, grime, or oils. Stick the RFID button to the vehicle using one of the double-sided adhesive pads provided with the buttons.



RFID Button

7. TRANSFER FLEETCONNECT DATABASE TO DMS i1000S

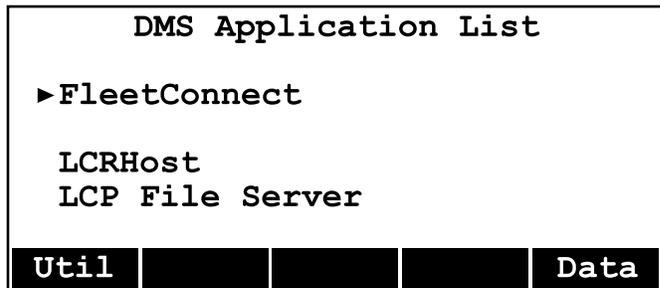
The next step is to transfer the database from the office PC to the DMS i1000s. Liquid Controls recommends using a USB memory device for the initial loading of the FleetConnect database. Transmitting a large amount of data wirelessly can be time consuming and, for cellular transmissions, costly.



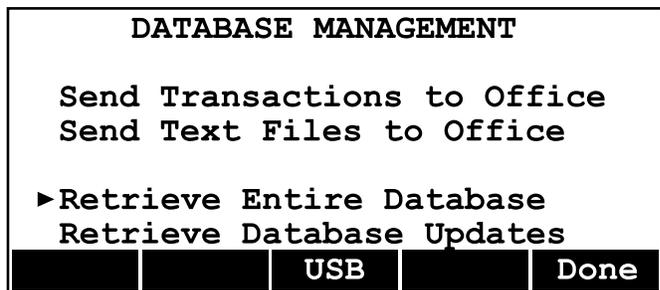
USB Flash Memory Device

To transfer the entire FleetConnect database to the DMS i1000 via USB device:

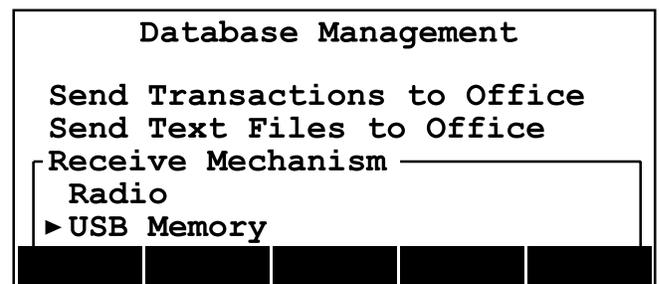
1. From the office PC, name the USB memory device **DMS_USB** and create a folder named DMS in it. (USB memory devices from Liquid Controls are pre-configured to these settings.)
2. Copy the .502 and .slf files from the C:\DMS folder into the DMS folder on the USB memory device. (Example D:/DMS)
3. Remove the USB memory device from the office computer and plug it into a DMS i1000.
4. On the DMS i1000 lap pad, push **ALT** and **ESC** simultaneously to open **Data Application List**.
5. Press **F5 (Data)** to open **Database Management**.
6. Press **F3 (USB)** to boot the USB Drive.
7. Select **Retrieve Entire Database** and press **ENTER**.
8. Select **USB Memory Device** as the Receive Mechanism and press **ENTER**. The **Retrieving Database** screen will appear while the database loads onto the DMS i1000.
9. Press **ENTER** upon successful retrieval of the database files.
10. Repeat steps 3-9 until all DMS i1000s are loaded with the FleetConnect database.



Util (F1) opens System Utilities (1/3) See pg. 12 EM200-11
Data (F5) opens Send/Receive Transactions screen



USB (F3) activates the USB memory device
Done (F5) opens Fueler Logon or Fill Vehicles screen, or DMS Application List screen



Receive Mechanism—USB Memory Device



FleetConnect Read (FCRead) Icon

Setting FCRead's File Format Output

FCRead's output (.csv, .asr, or .xml) is determined by the **Transformat:** option in the SysDefs tab (pg. 27) or the Edit Record Validation setting in the **Target:** field of the FCRead Properties window (pg. 14).

FCRead

FCRead converts transaction files sent from DMS i1000s into files for use in FCEdit and your back office accounting software application.

During fueling shifts in the field, the DMS i1000(s) compiles data recorded during deliveries into a transaction file, Comp502.trn. The Comp502.trn file(s) are then transferred, either wirelessly from the DMS i1000 or via a USB memory stick, into the C:\DMS folder on your office computer.

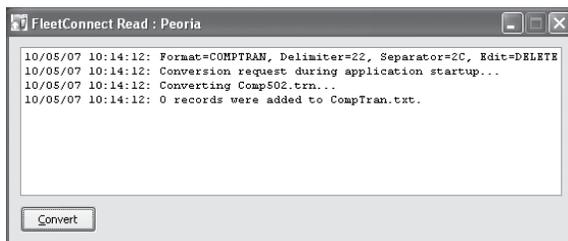
When the FCRead program opens (or the **Convert** button in the FCRead window is clicked on) on your computer, FCRead will automatically convert the Comp502.trn files into a text file (.csv, .asr, or .xml).

Edit501.trn

if the Edit Record Validation feature is activated and a DMS i1000 added new database information during a shift, FCRead will create an edit transactions file, Edit501.trn. This file will enact the Edit Record Validation feature in FCEdit.

And, if the Edit Record Validation feature is activated and a DMS i1000 added new database information during a shift, FCRead will also create an edit transactions file, Edit502.trn. This file will enact the Edit Record Validation feature in FCEdit.

How you use FCRead will depend on the method of data transmission your FleetConnect System uses.



FCRead (FleetConnect Read) Status Window

FCREAD & DB MANAGER

If DB Manager is installed and wireless communication is active, FCRead will automatically run every time a file is received from a DMS i1000. Refer to the DB Manager Installation & Setup Manual, EM200-21, for additional information on DB Manager.

FCREAD & USB MEMORY DEVICE

If you are using USB memory devices to transfer data between the DMS i1000s and the office PC, FCRead must be activated manually. **To use FCRead with the USB memory device:**

The FleetConnect Read text field displays the details of recent FCRead actions.

1. Open the FleetConnect USB memory device on your PC, drag and drop (or copy and paste) the transaction file, Comp502.trn, from the USB device into the **C:\DMS** folder.
- 2a. Double-click the **FCRead** icon to open the **FCRead** window. Opening the window will convert the Comp502.trn file in the C:\DMS folder into a CompTran.csv (or .asr or .xml).
- 2b. If the **FCRead** window is open, click **Convert** to convert the Comp502.trn into a CompTran.csv (or .asr or .xml).

FCREAD AUTOMATIC STARTUP

You also have the option of setting up FCRead to automatically open every time your computer boots up.

To run FCRead each time your computer boots up:

1. Click **Windows® Start** menu, point to **Programs**, then, right-click **Startup** and click **Open**.
2. Copy **FCRead.exe** into the **Startup** window.



Start>Programs>Startup - Startup Window

OPERATION

FCEdit

FCEdit is FleetConnect Office's user interface. There are seven tabs at the top of FleetConnect Office window. The Database tab in FCEdit provides commands for converting, reading, or writing CSV files, selecting a database, and validating records that have been changed in the field. The remaining tabs at the top of the FleetConnect Office window are interfaces for each FleetConnect database file. In these tabs, the records of the file can be viewed, edited, added, or deleted from the database.

FCEdit - Database Tab

The Database tab serves as the home to many important FCEdit commands, **Read CSV**, **Write CSV**, **Begin Validation**, and **Select Database**. Messages concerning the progress of these commands are reported in the white status window at the bottom of the tab. The **Clear Display** button clears the status window.

READ CSV AND WRITE CSV BUTTONS

Read CSV converts .csv files in the FleetConnect database into .502 files. **Write CSV** converts .502 files into .csv files. The check boxes, to the right of the buttons, determine which FleetConnect files are converted. The **Select All** button checks each box. The **Clear All** button unchecks each checked box. The Success, Errors, and Totals of each file conversion are displayed in the columns on the right side of the window.

To use Read CSV and Write CSV:

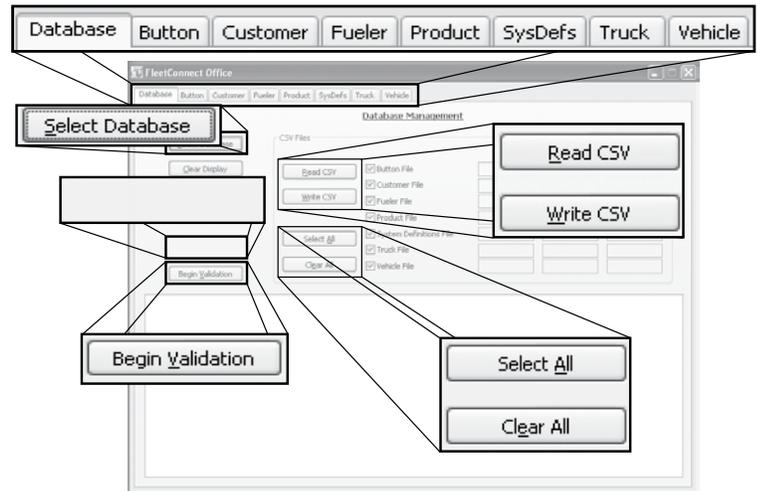
1. Open FCEdit and click the **Database** tab.
2. Under **CSV Files**, select the check boxes of the individual files for conversion or click **Select All** to convert all files.
3. Click **Read CSV**, to convert .csv files to .502 files, or **Write CSV**, to convert .502 files to .csv files.
4. When the **Select Folder for Source CSV Files** (for **Read CSV**) or the **Select Folder for Target CSV Files** (for **Write CSV**) window opens, select a folder where the .csv files (for **Read CSV**) or the .502 files (for **Write CSV**) will be placed.
5. Click **OK**. The files generated will be placed in the C:\DMS folder.

DMS i1000 FLEETCONNECT DATABASE UPDATES

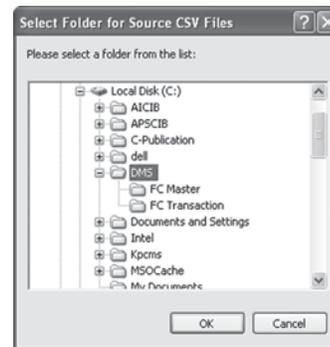
In order to update the FleetConnect database on the DMS i1000s in the field, transfer the .502 files created by the **Read CSV** to the DMS i1000s via USB memory stick or wireless transmission. Use the **Retrieve Database Updates** command on the DMS i1000 to pull all of the database files onto the DMS i1000.



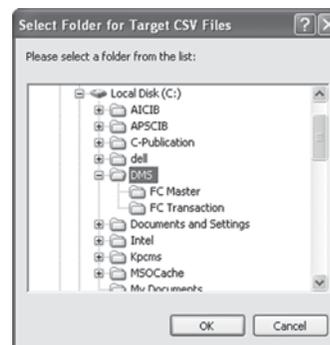
FleetConnect Read (FCRead) Icon



FCEdit Database Tab



Read CSV Browser



Write CSV Browser

FCEdit - Database Tab

SELECT DATABASE BUTTON

If you setup multiple databases in DB Manager, FCEdit provides a **Select Database** button in the Database Management tab to allow you to switch from one FleetConnect database to another. Different databases are helpful to keep different customers, sites, or fuelers separated. To setup multiple databases, see the **Register Application** section in the DB Manager Installation and Setup manual EM200-21. If more than one FleetConnect database is setup, the Select Database window will prompt you to select a database every time FCEdit is opened. The **Select Database** button allows you to switch to another database while FCEdit is open.

Select Database

VALIDATE RECORDS

Validate Records Settings

The record validation feature will not activate unless it is setup in FCRead Properties. The default mode is off. See page 14.

Clicking the **Begin Validation** button will initiate a review of any edits to the FleetConnect database made by the DMS i1000 units in the field. For example, if a fueler was asked to make a delivery to a plane for a new customer in a new location, entered the new customer and location into the DMS i1000, made the delivery, and sent the delivery file to the office, those changes the fueler made to the database will be presented for your validation in FCEdit. Each change will appear one at a time in a succession of pop-up validation windows. There are three possible validation windows: **Create Record**, **Delete Record**, or **Update Record**.

You have four options in a validation window:

- To accept the change, click **Accept**.
- To edit the change, simply key in any additional data or edits and then click **Accept**.
- To reject the change and preserve the original file, click **Reject**.
- To end/quit the record validation review click **Cancel**.

If you quit the validation review, the review will restart with the record that was open when you quit. The status field at the bottom of the Database tab will provide details of the validation actions taken (either accept or reject).

Validated Records and Accounting Software

FCEdit updates the existing CompTran.csv (or .asr or .xml) file in C:DMS upon each validation action. If you want the validation data transferred into your back office accounting software, transfer the CompTran.csv (or .asr or .xml) into your accounting software wait after the validation review.

Create Record

Update Record

Delete Record

OPERATION

FCEdit - File Tabs

With the exception of the Database tab, all of the tabs in the FCEdit tool are FleetConnect file tabs. File tabs display the records saved to that file.

A record is a unit of the file. For example, one record in the customer file represents one customer, and one record in the vehicle file represent one vehicle. Records are displayed in rows, and their fields are designated by columns. To sort records according to field, double-click on the title of the field at the top of the table.

When a file tab is open, records can be added, deleted or edited.

To add a new record:

1. From the **FleetConnect Office** window, click on one of the file tabs.
2. At the bottom left corner of the file tab, click **New**. The **New** window will appear.
3. Type (or select from a drop-down box) the necessary information into the fields.
4. Click **OK** to save the new record.

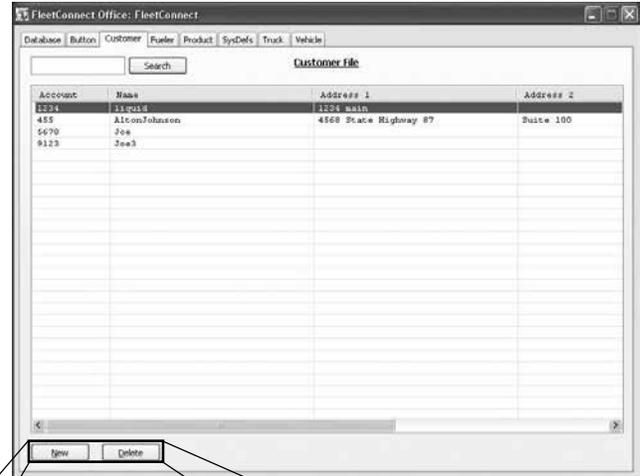
To delete a record, perform the following:

1. From the **FleetConnect Office** window, click on one of the file tabs
2. Click a record to highlight it.
3. At the bottom left corner of the file tab, click **Delete**. The **Delete** window will appear.
4. Click **Yes** to delete the record.

To edit a record, perform the following:

1. From the **FleetConnect Office** window, click on one of the file tabs.
2. Double-click a record. The **Edit** window will appear.
3. Type (or select from a drop-down box) the necessary information into the fields.
3. Click **OK** to save the edited record.

The following pages list and describe the fields of the file tabs. The screens shown and options provided will vary according to actions performed in the database.



Customer Tab with New and Delete Buttons

New Vehicle Window

Delete Window

Edit Window

Button ID	Account	Vehicle
02000013097D3201	1000	BL98
080000121C161801	1105	TC92
090000096921F301	1105	TC92
1A000013097CF901	2018	SV2
2A000009678C501	1105	BL98
3100001309A9C201	2003	TR93
33000013098E0E01	1115	LD92
330000130A8D401	1119	TC290
3600001199605001	2003	DT3480
370000121C346C01	1105	BL99
380000130AD3B801	2001	SV9239
3900001309A34101	2003	DT3480
400000130A0D3801	2000	TR976
4700001309E35601	1000	TC22
480000130A335F01	1000	TC38
510000130A503801	1001	TR97
99000012188CB101	1000	TR293
710000130A9C9701	1000	BL120
7900000949CF901	2024	DT928
8800001309AC6301	1105	TC321
9800000967B33001	2025	TR33
990000130AD4CD01	1116	TR89
880000130A596901	1000	TC11
CS0000121C1CF801	2035	SV3
CS00001309CF8801	2000	DT37
CC00001309490501	2003	TR980
DA0000130977F5801	1000	TC14

Button Tab

Account	Name	Address 1	Address 2
1234	Liquid	1234 main	
5678	Customer2		
9999	Customer3		

Customer Tab

The customer file is shared by all DMS Applications including FleetConnect, AviationConnect, and DMS Delivery.

Button Tab

The Button tab is FCEdit's user interface for viewing, creating, editing, or deleting data saved to RFID buttons in FleetConnect's Button database file.

Button ID:

The ID of the RFID button. *16 alphanumeric characters maximum.*

Account:

The customer account associated with the RFID button. *12 alphanumeric characters maximum.*

Vehicle:

The vehicle assigned to the RFID button. *12 alphanumeric characters maximum.*

Customer Tab

The Customer tab is FCEdit's user interface for viewing, creating, editing, or deleting customer account and contact information saved in FleetConnect's Customer database file.

Account:

The customer's account number. *12 alphanumeric characters maximum.*

Name:

The customer's name. *35 alphanumeric characters maximum.*

Address 1:

The first line of the customer's address. *35 alphanumeric characters maximum.*

Address 2:

The second line of the customer's address. *35 alphanumeric characters maximum.*

City:

The city where the customer is located. *19 alphanumeric characters maximum.*

State:

The state where the customer is located. *Two alphanumeric characters maximum.*

Zip:

The zip code of the customer address. Entering the zip code will fill in the **City** and **State** fields automatically. *10 alphanumeric characters maximum.*

Phone:

The customer's phone number. *14 alphanumeric characters maximum.*

OPERATION

Fueler Tab

The Fueler tab is FCEdit's user interface for viewing, creating, editing, or deleting fueler ID information saved in FleetConnect's Fueler database file.

Number:

A user-defined number assigned to the fueler. *16 numeric digits maximum.*

ID:

A user-defined ID assigned to the fueler ID. *16 alphanumeric digits maximum.*

Full Name:

The fueler's full name. *35 alphanumeric characters maximum.*

First Name:

The fueler's first name. *17 alphanumeric characters maximum.*

Last Name:

The fueler's last name. *17 alphanumeric characters maximum.*

Password:

The fueler's password. *10 alphanumeric characters maximum.*

Security:

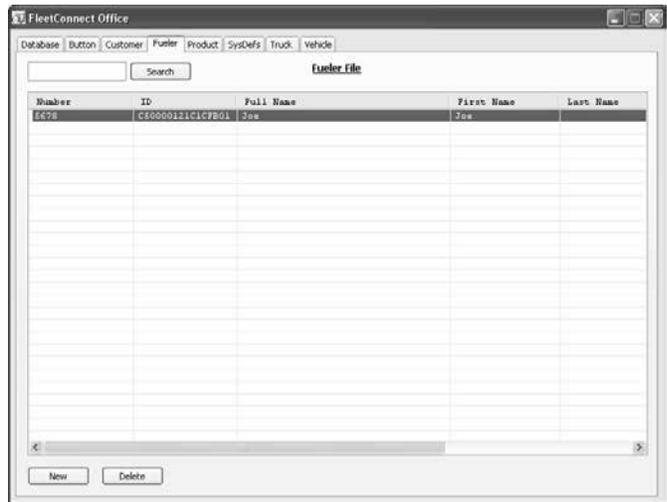
The security access of the fueler on the DMS i1000.

Applications:

The DMS i1000 applications available to the fueler.

Language:

The language of DMS i1000 Lap Pad display after the fueler logs on.



Fueler Tab

The fueler file is shared by all DMS Applications including FleetConnect, AviationConnect, and DMS Delivery.

Product Tab

The Product tab is FCEdit's user interface for viewing, creating, editing, or deleting fuel types; mapping the product back to the LectroCount register; labeling the product on the ticket; and designating a product code in FleetConnect's Product database file.

Product Code:

A user-defined code assigned to the product. *Eight alphanumeric characters maximum.*

Name:

The product's name. *24 alphanumeric characters maximum.*

LCR Device Address:

The node address of the LCR electronic register that will deliver the product. Value to match node address programmed into the LectroCount register. *Numeric characters between 1 and 250.*

LCR Product Number:

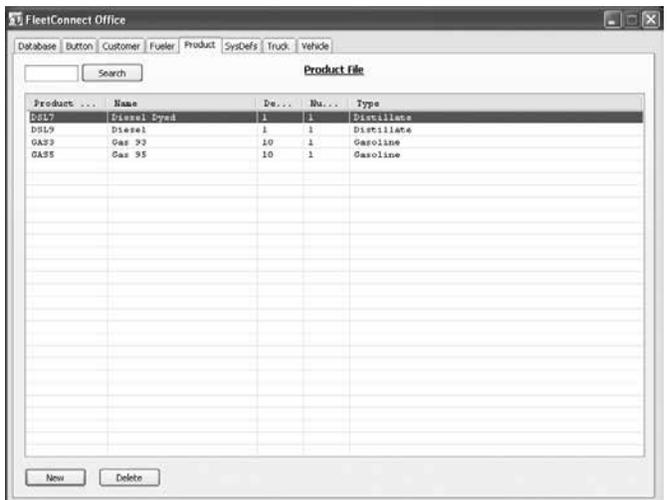
The calibration number in the LCR electronic register of the product.

1•2•3•4

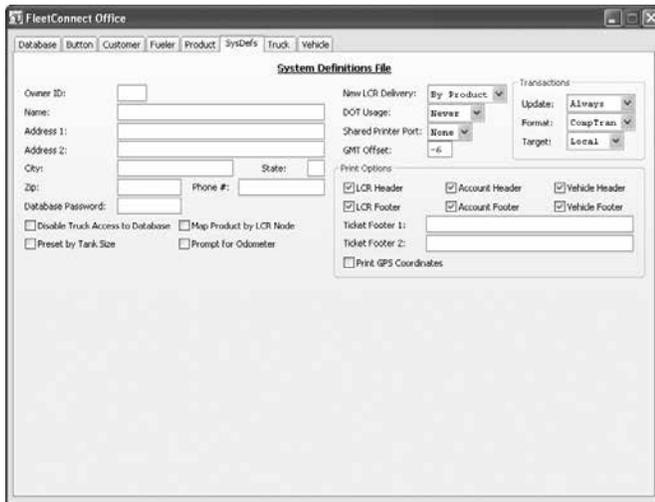
LCR Product Type:

The product's type. Must match product type on the LectroCount register.

Ammonia • Aviation • Distillate • Gasoline • Methanol • LPG
• Lube Oil • blank



Product Tab



SysDefs Tab

Prompt for Odometer:

Asks for odometer reading at DMS i1000 logon.

New LCR Delivery:

Sets the DMS i1000 to begin a new LCR Delivery when one of the following properties is changed on the DMS i1000.

Account • Product • Vehicle

DOT Usage:

Enables DOT check at logons and logoffs.

Never • Logon • Logoff • Both

Shared Printer Port:

Allows DMS to communicate directly to printer without LCR.

None • COM1 • COM2 • • COM8

GMT Offset:

Location's offset from Greenwich Mean Time.
Numeric characters between -12 and 12.

Transactions Update:

When the current transactions update method will occur.

Always • Both • Logoff • Logon • Never

Transactions Format:

The file format of FCRead output.

CompTran (text file) • ASR (backward compatible LC file format - contact factory for more information) • XML (excel file)

Transactions Target:

Sets the transmission target of the .trn files created by the DMS i1000. The Local setting retains the .trn files on the DMS i1000 until they are retrieved manually. The USB setting sends the files to the USB memory stick. The Office setting sends the files out via cell modem or RF transmission.

Local • USB • Office

Print Options:

LCR Header, LCR Footer, Account Header, Account Footer, Vehicle Header, Vehicle Footer, and Print GPS Coordinates.

Sections printed on delivery tickets

SysDefs Tab

The SysDefs (Systems Definitions) tab is FCEdit's user interface for viewing, creating, editing, or deleting FleetConnect system settings and information saved in FleetConnect's SysDefs database file.

Ticket Footer 1:

The footer comment option 1 for fields printed onto delivery tickets. *Thirty five alphanumeric characters maximum.*

Ticket Footer 2:

The footer comment option 2 for fields printed onto delivery tickets. *Thirty five alphanumeric characters maximum.*

Owner ID:

The ID of the owner. *Four alphanumeric characters maximum.*

Name:

The name of the fueling operation. *35 alphanumeric characters maximum.*

Address 1:

The first line of the address of the fueling operation. *35 alphanumeric characters maximum.*

Address 2:

The second line of the address of the fueling operation. *35 alphanumeric characters maximum.*

City:

The name of the city where the fueling operation is located. *19 alphanumeric characters maximum.*

State:

The state where the fueling operation is located. *Two alphanumeric characters maximum.*

Zip:

The postal zip code where the fueling operation is located. *10 alphanumeric characters maximum.*

Phone #:

The phone number of the fueling operation. *14 alphanumeric characters maximum.*

Database Password:

Password for access to FleetConnect's Database Management on the DMS i1000 units. *10 alphanumeric characters maximum. Blank = no password.*

Disable Truck Access to Database Management:

Prohibits access to FleetConnect's Database Management on the DMS i1000 units.

Preset by Tank Size:

DMS i1000 FleetConnect Fill Vehicles screen defaults to a preset volume equal to the tank size of the vehicle.

Map Product by LCR Node:

Selects the fueling product from the LCR by node address and calibration # instead of by product type.

SysDefs Check Boxes

Checked = enabled : Unchecked = disabled

OPERATION

Truck Tab

The Truck tab is FCEdit's user interface for viewing, creating, editing, or deleting fueling truck data saved in FleetConnect's Truck database file.

Unit ID:

The unit ID code of the LectroCount register on the truck. *10 alphanumeric characters maximum.*

The LCR Unit ID field in the Truck File of the FleetConnect database must match the LCR Unit ID field in LCRHost's General Setup (1/5) screen. See manual EM200-11.

Name:

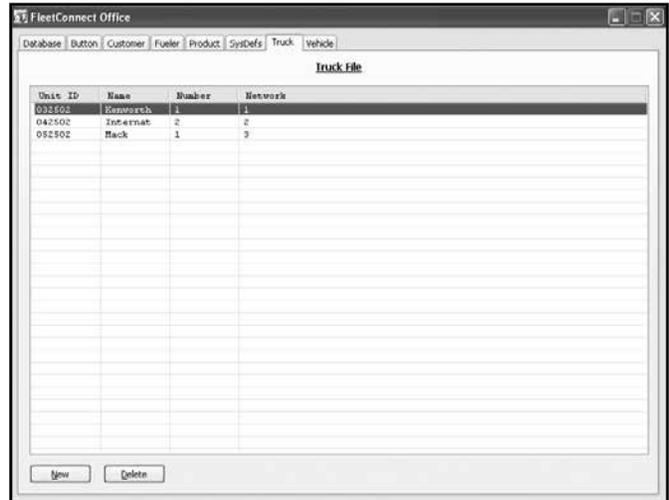
The truck's name. *16 alphanumeric characters maximum.*

Number:

The user-defined number assigned to the truck. *Numeric characters between 0 and 4294967295.*

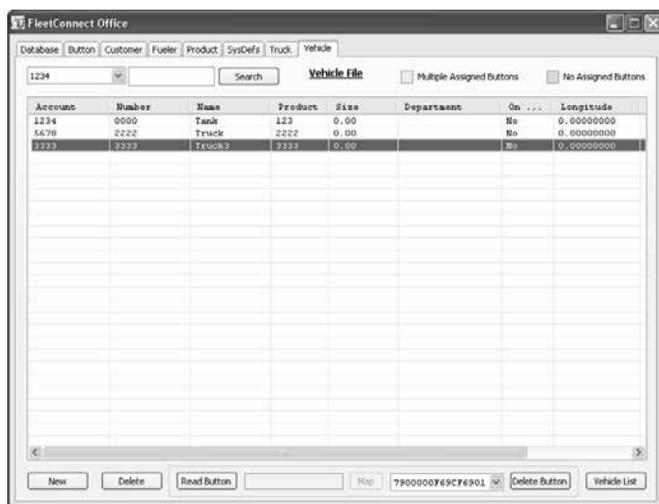
Network:

The truck network. Typically indicates the number of LectroCount registers on the truck. *Numeric characters between 0 and 65535.*



Truck Tab

The truck file is shared by all DMS Applications including FleetConnect, AviationConnect, and DMS Delivery.



Vehicle Tab

Vehicle Tab

The Vehicle tab is FCEdit's user interface for viewing, creating, editing, or deleting vehicle data saved in FleetConnect's Vehicle database file. Each record in the Vehicle file represents a fuelable vehicle or piece of equipment.

Account:

The customer's account number. The value can be changed using the drop-down box. *List is determined by records in Customer tab.*

Vehicle:

The number of the fuelable vehicle. *12 alphanumeric characters maximum.*

Name:

The name of the fuelable vehicle's owner. *12 alphanumeric characters maximum.*

Product Code:

The code of the fueling product. The value can be changed using the drop-down box. *List is determined by the Product tab.*

Tank Size:

The size of the fuelable vehicle's tank. *10 numeric characters maximum.*

Department:

The department that will be billed for fueling the vehicle. *16 alphanumeric characters maximum.*

On-Road:

Determines if the vehicle is an "on road" vehicle (Yes = Enabled, No = Disabled).

Longitude:

The longitude of the fueling location. *13 numeric characters maximum, negative or positive integers.*

Latitude:

The latitude of the fueling location. *12 numeric characters maximum, negative or positive integers.*

Altitude:

The altitude of the fueling location. *Eight numeric characters maximum, negative or positive integers.*

BILL OF MATERIALS

Description	Part Number
USB Button Reader Adapter	71707
USB Button Reader Cable	71395
EZConnect Button Reader with RFID Button Reader Cable	E4363
RFID Button and Mounting Kit (Qty. 10)	82696
USB Flash Memory Device	82684
FleetConnect Office CD ROM	SG502CD
DB Manager CD ROM	SH252CD
Roll Printer Kit without Cable, without RS232 & Power, without Reel	E49005



EZConnect Button Reader with RFID Button Reader Cable



USB Button Reader Adapter with Cable



USB Flash Memory Device



DB Manager CD ROM



Epson Roll Printer



FleetConnect Office CD ROM



Appendix

DATA FILES OVERVIEW

The first section of the appendix includes examples of ASCII text files (.csv and .txt) and tables describing each field. The text file name and the DMS file name are noted in parentheses.

Numeric fields must contain a value. If the field does not have a value, use a "0".

If an alphanumeric fields does not have a value, put nothing between the quotes — "".

FIELD TYPES

The number in the Field Type column represents the maximum number of characters allowed in the field.

A - Alphanumeric

Integer- Numeric value, no decimal point

Floating - Numeric value, decimal point

Button.csv - Button File (Button.502)

"7900000F69CF6901","9123","3333"[CR/LF]

Field #	Field Name	Description	Field Type	Example
1	buttonID	Operator defined button ID (Required)	A16	7900000F69CF6901
2	customer	Operator defined customer name (Required)	A12	9123
3	vehicle	Operator defined vehicle name	A12	3333

Customer.csv - Customer File (Customer.slf)

"455","AltonJohnson","4568 State Highway 87","Suite 100","Sapphire","NM","87755","4732224899"[CR/LF]

Field #	Field Name	Description	Field Type	Example
1	account	Operator defined account number (Required)	A12	455
2	name	Customer name	A35	AltonJohnson
3	address1	Address line 1	A35	4568 State Highway 87
4	address2	Address line 2	A35	Suite 100
5	city	Customer city	A19	Sapphire
6	state	Customer state	A2	NM
7	zip	Customer zip code	A10	87755
8	phone#	Customer phone number	A14	4732224899

DATA FILES**Fueler.csv - Fueler File (Fueler.slf)**

"64","Test","stuart dybek","stuart","dybek","marta","123","12345","0" [CR/LF]

Field #	Field Name	Description	Field Type	Example
1	number	Operator defined fueler number (Required)	A16	64
2	id	Operator defined fueler ID (Required)	A16	Test
3	full name	Full name of fueler	A35	stuart dybek
4	firstName	First name of fueler	A14	stuart
5	lastName	Last name of fueler	A17	dybek
6	password	Operator defined password	A10	marta
7	security	Security level of fueler	Integer (0-255)	123
8	applications	Applications that can be run by the fueler	Integer (0-65535)	12345
9	language	DMS i1000 Lap Pad display language (Required)	Integer (0-999)	0 =English

Product.csv - Product File (Product.502)

"D1","Diesel","1","0","2" [CR/LF]

Field #	Field Name	Description	Field Type	Example
1	code	Operator defined product code (Required)	A8	D1
2	name	LCR device address used to deliver product	A24	Diesel
3	device	LCR device used to deliver product	Integer (1-250)	1
4	product	Product calibration number designated by LCR	Integer (1-4)	0
5	type	Integer that matches LectroCount register calibration: 0=Ammonia, 1=Aviation, 2=Distillate, 3=Gasoline, 4=Methanol, 5=LPG, 6=Lube Oil, 7=None (Required)	Integer (0-7)	2

Appendix

DATA FILES

SysDefs.csv - System Definitions File (SysDefs.502)

"1234","Schultz","447 Talbot Lane","","Oswego","il","60543","6305511234","guppie","0","0","0","0","2","0","0","-7","0","1","1","1","1","1","0","0","0","0","0","0","0","0"

Field #	Field Name	Description	Field Type	Example
1	ownerID	ID of Owner	A4	1234
2	ownerName	Owner's name	A35	Schultz
3	ownerAddr1	Owner's address line 1	A35	447 Talbot Lane
4	ownerAddr2	Owner's address line 2	A35	--
5	ownerCity	Owner's city	A19	Oswego
6	ownerState	Owner's state	A2	il
7	ownerZip	Owner's zip	A10	60543
8	ownerPhone	Owner's phone	A14	6305511234
9	dbPassword	Password for Database Management access	A10	guppie
10	disabletruckaccesstodatabasemanagment	0=No, 1=Yes	Integer (0-1)	0
11	presetbytanksize	0=No, 1=Yes	Integer (0-1)	0
12	mapProduct	0=No, 1=Yes	Integer (0-1)	0
13	promptforOdometer	0=No, 1=Yes	Integer (0-1)	0
14	newLCRDelivery	When new LCR Delivery is started: 0=by shift, 1=by account, 2=by vehicle	Integer (0-2)	2
15	DOTusage	0=never, 1=logon, 2=logoff, 3=both	Integer (0-3)	0
16	shareprinterport	Port used for printer sharing 0=none, 1=COM1, 2=COM2, 3=COM3, 4=COM4, 5=COM5, 6=COM6, 7=COM7, 8=COM8	Integer (0-8)	0
17	gmtOffset	Offset to Greenwich Mean Time	Integer (±12)	-7
18	transupdate	0=Always, 1=Both, 2=Logoff, 3=Logon, 4=Never	Integer (0-4)	0
19	transformat	Format of the transaction record; 0=CompTran, 1=ASR, 2=XML	Integer (0-2)	1
20	transTarget	Secondary target of the transaction record; 0=Local, 1=USB, 2=Office	Integer (0-2)	1
21	printLCRHeader	0=No, 1=Yes	Integer (0-1)	1
22	printAccountHeader	0=No, 1=Yes	Integer (0-1)	1
23	printVehicleHeader	0=No, 1=Yes	Integer (0-1)	1
24	printLCRFooter	0=No, 1=Yes	Integer (0-1)	0
25	printAccountFooter	0=No, 1=Yes	Integer (0-1)	0
26	printVehicleFooter	0=No, 1=Yes	Integer (0-1)	0
27	ticketfooter1	Ticket footer text	A35	0
28	ticketfooter2	Ticket footer text	A35	0
29	printGPScoordinates	0=No, 1=Yes	Integer (0-1)	0

DATA FILES**Truck.csv - Truck File (Truck.slf)**

"1","Tanker2","3","2" [CR/LF]

Field #	Field Name	Description	Field Type	Example
1	LCRunitID	Unit ID of LCR at node address 1 (Required)	A10	1
2	name	Name of the truck	A16	Tanker2
3	number	Operator defined truck number (Required)	Integer (0-4294967295)	3
4	network	Select 1-meter, 2-meter, 3-meter network (Required)	Integer (0-65535)	2

Vehicle.csv - Vehicle File (Vehicle.502)

"455","45","87.88","42.27","788","20.00","1","Accounting","Skid Loader","D1" [CR/LF]

Field #	Field Name	Description	Field Type	Example
1	account	Customer account number (Required)	A12	455
2	number	Customer vehicle number (Required)	A12	45
3	longitude	Longitude of vehicle location (Required)	Floating(±180.--)	87.88
4	latitude	Latitude of vehicle location (Required)	Floating(±90.--)	42.27
5	altitude	Altitude of vehicle location (Required)	Floating(±99999.9)	788
6	tanksize	Size of vehicle tank (Required)	Floating	20.00
7	onroad	On-road vehicle; 0=No, 1=Yes	Integer (0-1)	1
8	department	Department billed for the vehicle	A16	Accounting
9	name	Vehicle name	A12	Skid Loader
10	product	Product code used by vehicle (Required)	A8	D1

Appendix

DATA FILES

Completed Transactions File (COMP502.TRN - CompTran.txt)

Each record in the CompTran.txt file includes the first five field numbers listed in the table. The 5th field signifies the record type. Fields after the 5th field make up one of the 5 record types in the table. The following three records are listed out in the example column of the table for reference.

"10/09/09 10:33:12","45","1","80","0","0.0","0.0" (Fueler Logon Record - see example below)

"10/09/09 10:37:26","45","1","80","3","090911020","09/09/10 10:33:24","09/09/10 10:37:26","50","H25","","",
No","001","750.3","828.2","77.9","0.0","0.0","0.0","0.0000","0.0000","0.0000","0.0000","0" (Vehicle Fill Record - see example below)

"10/09/09 10:43:11","45","1","80","1","0.0","802.1" (Fueler Logoff Record - see example below)

Field #	Field Name	Description	Field Type	Example
1	dateTime	Date and time record was written. yy/mm/dd hh:mm:ss.	A17	10/08/15 05:46:46
2	ownerID	ID of owner of truck making deliveries.	A4	45
3	truck	Truck number that made the delivery.	Integer (0-4294967295)	1
4	fueler	Fueler number.	A16	80
5	recordType	Type of record. (See record types in shaded boxes below.)	A1	0
recordType = 0 (Fueler Logon)				
6	odometer	Odometer reading at the time of the logon.	A11	0.0
7	unaccounted	Unaccounted fuel at the time of the logon.	A11	0.0
recordType = 1 (Fueler Logoff)				
6	odometer	Odometer reading at the time of the logoff.	A11	0.0
7	unaccounted	Unaccounted fuel at the time of the logoff.	A11	802.1
recordType = 3 (Vehicle Fill)				
6	invoice	Invoice number = mmdduunsss where mm is the month, dd is the day, uu is the last two characters of the LCR Unit ID, n is the last digit of the LCR node address, and sss is the last three digits of the LCR sale number.	A19	090911020
7	beginDelivery	Delivery start date and time. mm/dd/yy hh:mm:ss.	A17	09/09/10 10:33:24
8	endDelivery	Delivery end date and time. mm/dd/yy hh:mm:ss.	A17	09/09/10 10:37:26
9	account	Customer account number.	A13	50
10	vehicle	Customer vehicle number that received the fuel.	A13	H25
11	department	Department that is billed for the vehicle.	A16	---
12	onRoad	On-road indicator of vehicle being fueled.	A3	No
13	product	Product code delivered to the vehicle.	A8	001
14	grossBegin	Gross totalizer at the beginning of the delivery.	A12	750.3
15	grossEnd	Gross totalizer at the end of the delivery.	A12	828.2
16	grossQty	Gross quantity of fuel delivered.	A12	77.9
17	netBegin	Net totalizer at the beginning of the delivery.	A12	0.0
18	netEnd	Net totalizer at the end of the delivery.	A12	0.0
19	netQty	Net quantity of fuel delivered.	A12	0.0
20	longitude	Longitude where record was created.	A9	0.0000
21	latitude	Latitude where record was created.	A8	0.0000
22	altitude	Altitude where record was created.	A7	0.0000
23	accuracy	Horizontal dilution of precision.	A4	0.0000
24	fixType	Fix Type: 0=None, 1=Non-DGPS, 2=DGPS, 6=Estimated.	A1	0

DATA FILES**Completed Transactions File (COMP502.TRN - CompTran.txt)**

Field #	Field Name	Description	Field Type	Example
recordType = 4 (DOT Information)				
6	odometer	Odometer reading at the time of the DOT inspection.	A11	---
7	engine	Yes/No indicating whether or not the engine was checked.	A3	---
8	transmission	Yes/No indicating whether or not the transmission was checked.	A3	---
9	clutch	Yes/No indicating whether or not the clutch was checked.	A3	---
10	steering	Yes/No indicating whether or not the steering mechanism was checked.	A3	---
11	horn	Yes/No indicating whether or not the horn was checked.	A3	---
12	windshield	Yes/No indicating whether or not the windshield wipers/washers were checked.	A3	---
13	rearMirrors	Yes/No indicating whether or not the rear view mirrors were checked.	A3	---
14	lightsReflectors	Yes/No indicating whether or not the lights and reflectors were checked.	A3	---
15	parkingBrakes	Yes/No indicating whether or not the parking brakes were checked.	A3	---
16	serviceBrakes	Yes/No indicating whether or not the service brakes were checked.	A3	---
17	tires	Yes/No indicating whether or not the tires were checked.	A3	---
18	wheelsRims	Yes/No indicating whether or not the wheels and rims were checked.	A3	---
19	eEquipment	Yes/No indicating whether or not the emergency equipment was checked.	A3	---
20	ERSat150	Yes/No indicating whether or not the ERS was checked and works from 150 ft. away.	A3	---
21	truckCondition	Yes/No indicating whether or not the overall truck condition is OK.	A3	---
recordType = 5 (Load Truck)				
6	source	Name of source tank.	A13	---
7	product	Type of product that was transferred.	A1	---
8	quantity	Quantity of product that was transferred.	A12	---
9	temperature	Temperature of product during delivery.	A3	---

Appendix

DATA FILES

CompTran.xml - Completed Transactions File

```
<!--Fueler Logon-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType0>
    <odometer>xxxxxxx.x</odometer>
    <unaccounted>xxxxxxx.x</unaccounted>
  </recordType0>
</CompTran>
</SG502DMS>

<!--Fueler Logoff-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType1>
    <odometer>xxxxxxx.x</odometer>
    <unaccounted>xxxxxxx.x</unaccounted>
  </recordType1>
</CompTran>
</SG502DMS>

<!--Vehicle Fill-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType3>
    <invoice>xxxxxxxxxxxxxxxx</invoice>
    <beginDelivery>mm/dd/yy hh:mm:ss</beginDelivery>
    <endDelivery>mm/dd/yy hh:mm:ss</endDelivery>
    <account>xxxxxxxxxxxxxxxx</account>
    <vehicle>xxxxxxxx</vehicle>
    <department>xxxxxxxxxxxxxxxx</department>
    <onRoad>Yes</onRoad>
    <product>xxxxxxxxxxxxxxxx</product>
    <grossBegin>xxxxxxx.x</grossBegin>
    <grossEnd>xxxxxxx.x</grossEnd>
    <grossQty>xxxxxxx.x</grossQty>
    <netBegin>xxxxxxx.x</netBegin>
    <netEnd>xxxxxxx.x</netEnd>
    <netQty>xxxxxxx.x</netQty>
    <longitude>xxx.xxx</longitude>
    <latitude>xxx.xxx</latitude>
    <altitude>xxxx.x</altitude>
    <accuracy>xx.x</accuracy>
    <fixType>x</fixType>
  </recordType3>
</CompTran>
</SG502DMS>
```

DATA FILES**CompTran.xml - Completed Transactions File**

```

<!--DOT Information-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType4>
    <odometer>xxxxxxx.x</odometer>
    <engine>Yes</engine>
    <transmission>Yes</transmission>
    <clutch>Yes</clutch>
    <steering>Yes</steering>
    <horn>Yes</horn>
    <windshield>Yes</windshield>
    <rearMirrors>Yes</rearMirrors>
    <lightsReflectors>Yes</lightsReflectors>
    <parkingBrakes>Yes</parkingBrakes>
    <serviceBrakes>Yes</serviceBrakes>
    <tires>Yes</tires>
    <wheelsRims>Yes</wheelsRims>
    <eEquipment>Yes</eEquipment>
    <ERSat150>Yes</ERSat150>
    <truckCondition>Yes</truckCondition>
  </recordType4>
</CompTran>
</SG502DMS>

<!--Load Truck-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType5>
    <source>xxxxxxxx</source>
    <product>xxxxxxxx</product>
    <quantity>xxxxxxx.x</quantity>
    <temperature>xxx</temperature>
  </recordType5>
</CompTran>
</SG502DMS>

<!--File Edit-->
<CompTran>
  <dateTime>yy/mm/dd hh:mm:ss</dateTime>
  <ownerID>xxxx</ownerID>
  <truck>xxxxxxxx</truck>
  <fueler>xxxxxxxxxxxxxxxx</fueler>
  <recordType>x</recordType>
  <recordType6>
    <fileID>x</fileID>
    <fileOp>x</fileOp>
    <record>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</record>
  </recordType6>
</CompTran>
</SG502DMS>

```





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